

CLAIMS

1. The use of high-absorption-capacity precipitated silica, preferably with a mean size of at 5 least 50  $\mu\text{m}$ , as starting material for the production of a colorant by means of impregnation of said silica with an inorganic pigment in the form of a dissolved soluble salt.

2. The use as claimed in claim 1, 10 characterized in that said inorganic pigment is based on a metallic compound, preferably based on an iron compound.

3. The use as claimed in claim 2, 15 characterized in that said metallic compound is dissolved soluble iron sulfate, dissolved soluble iron nitrate or a mixture thereof.

4. The use as claimed in one of claims 1 to 3, characterized in that said precipitated silica has a DOP oil uptake of at least 260 ml/100 g and in 20 particular of at least 300 ml/100 g.

5. The use as claimed in one of claims 1 to 4, characterized in that said precipitated silica is in the form of particles with a mean size of at least 50  $\mu\text{m}$ .

25 6. The use as claimed in one of claims 1 to 5, characterized in that said precipitated silica is in the form of substantially spherical beads.

7. The use as claimed in one of claims 1 to

6, characterized in that said precipitated silica has a BET specific surface area of at least 50 m<sup>2</sup>/g, in particular at least 75 m<sup>2</sup>/g and especially at least 90 m<sup>2</sup>/g.

5           8. The use as claimed in one of claims 1 to 7, characterized in that the impregnated silica obtained is subjected to calcination and then optionally to grinding.

10          9. The use as claimed in claim 8, characterized in that the calcination is performed at a temperature of between 600 and 1300°C, in particular between 700 and 1300°C and preferably between 800 and 1200°C.

15          10. The use as claimed in either of claims 8 and 9, characterized in that the calcination is performed at a temperature of between 1000 and 1200°C.

11. The use as claimed in one of claims 8 to 10, characterized in that the calcination time is at least 30 minutes and in particular at least 45 minutes.

20          12. A colorant that may be obtained by calcination, and then optional grinding, of a high-absorption-capacity precipitated silica, preimpregnated with an inorganic pigment in the form of a dissolved soluble salt.

25          13. The colorant as claimed in claim 12, characterized in that said inorganic pigment is based on a metallic compound and preferably based on an iron compound.

14. The colorant as claimed in claim 13, characterized in that said metallic compound is dissolved soluble iron sulfate, dissolved soluble iron nitrate or a mixture thereof.

5 15. The colorant as claimed in one of claims 12 to 14, characterized in that said precipitated silica has a DOP oil uptake of at least 260 ml/100 g and in particular of at least 300 ml/100 g.

10 16. The colorant as claimed in one of claims 12 to 15, characterized in that said precipitated silica is in the form of particles with a mean size of at least 50  $\mu\text{m}$ .

15 17. The colorant as claimed in one of claims 12 to 16, characterized in that said precipitated silica is in the form of substantially spherical beads.

20 18. The colorant as claimed in one of claims 12 to 17, characterized in that said precipitated silica has a BET specific surface area of at least 50  $\text{m}^2/\text{g}$ , in particular at least 75  $\text{m}^2/\text{g}$  and especially at least 90  $\text{m}^2/\text{g}$ .

25 19. The colorant as claimed in one of claims 12 to 18, characterized in that the calcination is performed at a temperature of between 600 and 1300°C, in particular between 700 and 1300°C and preferably between 800 and 1200°C.

20. The colorant as claimed in one of claims 12 to 19, characterized in that the calcination is performed at a temperature of between 1000 and 1200°C.

21. The use of at least one colorant derived from the use as claimed in one of claims 1 to 11 or of at least one colorant as claimed in one of claims 12 to 20, for the coloration of ceramic materials, especially  
5 sandstone materials.

22. A ceramic material, characterized in that it contains at least one colorant derived from the use as claimed in one of claims 1 to 11 or at least one colorant as claimed in one of claims 12 to 20.

10 23. The ceramic material as claimed in claim 22, characterized in that it is formed from sandstone.

24. A roofing tile or paving tile, in particular of red to brown colour, consisting of a ceramic material according to either of claims 22 and  
15 23.

25. The use of at least one colorant derived from the use as claimed in one of claims 1 to 11 or of at least one colorant as claimed in one of claims 12 to 20, for the coloration of materials containing  
20 hydraulic or asphalt binder.

26. A material containing hydraulic or asphalt binder, characterized in that it contains at least one colorant derived from the use as claimed in one of claims 1 to 11 or at least one colorant as  
25 claimed in one of claims 12 to 20.